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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/676,315	10/01/2003	Keiji Hayashi	1324.68392	8188
7590 Patrick G. Burns Suite 2500 300 South Wacker Drive Chicago, IL 60606			EXAMINER PAYNE, SHARON E	
			ART UNIT 2875	PAPER NUMBER
			MAIL DATE 08/25/2008	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/676,315

**Applicant(s)**

HAYASHI ET AL.

**Examiner**

SHARON E. PAYNE

**Art Unit**

2875

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 19 May 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 9-11, 13-15 and 55-57 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 9-11, 13, 14, 56 and 57 is/are allowed.
- 6) ☒ Claim(s) 15 and 55 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB08)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Paper No(s)/Mail Date \_\_\_\_\_
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 15 and 55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kazuki (JP 10-1091079) in view of Levy (U.S. Patent 2,530,204) and Kurokawa (JP 56106360).

Regarding claim 15, Kazuki discloses a housing (Fig. 5), and an optical waveguide (4) guiding the light from the light source and emitting light through a light emitting surface (Fig. 1A). Kazuki does not disclose a cold cathode tube with phosphor dispersed throughout the inner and outer surfaces.

Levy discloses a light source (Fig. 2) having a cold-cathode tube (column 11, lines 70-75) with a phosphor (column 3, lines 37-47) dispersed between opposing inner and outer cylindrical diameters that form a wall of the tube (Fig. 2, see reference number 3).

It would have been obvious to one of ordinary skill in the art at the time

the invention was made to use the configuration of Levy in the apparatus of Kazuki to provide a lamp assembly with "high efficiency" (column 1, lines 20-25, of Levy).

Kurokawa discloses the phosphor being dispersed throughout a region between inner and outer surfaces of the wall of the tube (English abstract, Figs. 3-5).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the configuration of Kurokawa in the apparatus of Kazuki to make the light from the source brighter (English abstract of Kurokawa).

Concerning claim 55, Kazuki does not disclose the phosphor being dispersed in a cylinder wall of the cold-cathode tube.

Levy discloses the phosphor (column 3, lines 35-47, reference number 3) being dispersed in a cylinder wall of the cold-cathode tube (Fig. 2).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the configuration of Levy in the apparatus of Kazuki to provide a lamp assembly with "high efficiency" (column 1, lines 20-25, of Levy).

***Allowable Subject Matter***

3. Claims 9-11, 13-14 and 56-57 are allowed.

4. The following is a statement of reasons for the indication of allowable subject matter. The prior art fails to disclose a lamp system with the following features:

- 1 ) wherein the reflective surface includes at least three adjacent concaved curve segments, with each of the adjacent concaved curve segments having a curvature center and a constant radius, with the constant radius of at least one of the concaved curve segments being different from the constant radius of at least one other concaved curve segment as recited in claim 9; and
- 2) a lighting unit with a second optical waveguide disposed in the space between the cold-cathode tube and the reflector and having two ends that both face an end of the first optical waveguide as recited in claim 13.

#### ***Response to Arguments***

4. Applicant's arguments filed 5/19/08 have been fully considered but they are not persuasive. Applicant argues that the references do not disclose the phosphor being dispersed throughout a region between the inner and outer surfaces of the wall. To the contrary Kurokawa discloses this feature still, because "throughout a region" can be any part of the area between the inner and outer surfaces. The phrase "a region" can mean any part of the volume between the inner and outer surfaces or on the inner or outer surface, not necessarily the whole volume. MPEP 2111 requires a broad reading of the claim, and the Applicant is asking for a much narrower one. Thus Kurokawa still meets this element of the claim, and the rejections stand.

#### ***Conclusion***

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SHARON E. PAYNE whose telephone number is (571)272-2379. The examiner can normally be reached on regular business hours.

6. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra O'Shea can be reached on (571) 272-2378. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Sharon E. Payne/  
Examiner, Art Unit 2875